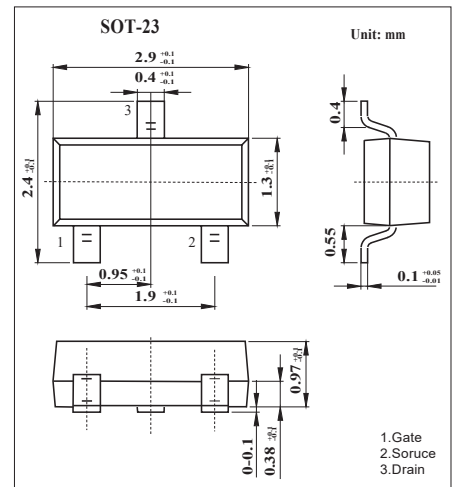


**SOT-23 Plastic-Encapsulate MOSFETS**
**FEATURES**

- High density cell design for low RDS(ON)
- Voltage controlled small signal switch
- Rugged and reliable
- High saturation current capability
- MOSFET (N-Channel)

**MECHANICAL DATA**

- Case style:SOT-23molded plastic
- Mounting position:any


**MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	20	V
Continuous Drain Current	$I_D$	0.115	A
Power Dissipation	$P_D$	0.225	W
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	556	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-50 ~+150	

 Mosfet Electrical Characteristics  $T_A=25^\circ\text{C}$  unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0\text{ V}, I_D=250\ \mu\text{A}$	60			V
Gate-Threshold Voltage	$V_{th(GS)}$	$V_{DS}=V_{GS}, I_D=250\ \mu\text{A}$	1		2.5	
Gate-body Leakage	$I_{GSS}$	$V_{DS}=0\text{ V}, V_{GS}=\pm 20\text{ V}$			$\pm 80$	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60\text{ V}, V_{GS}=0\text{ V}$			80	nA
On-state Drain Current	$I_{D(ON)}$	$V_{GS}=10\text{ V}, V_{DS}=7\text{ V}$	500			mA
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10\text{ V}, I_D=500\text{mA}$			7	$\Omega$
		$V_{GS}=5\text{ V}, I_D=50\text{mA}$			7	
Forward Trans conductance	$g_{fs}$	$V_{DS}=10\text{ V}, I_D=200\text{mA}$	80			ms
Drain-source on-voltage	$V_{DS(on)}$	$V_{GS}=10\text{V}, I_D=500\text{mA}$			3.75	V
		$V_{GS}=5\text{V}, I_D=50\text{mA}$			0.375	V
Diode Forward Voltage	$V_{SD}$	$I_S=115\text{mA}, V_{GS}=0\text{ V}$	0.55		1.2	V
Input Capacitance *	$C_{iss}$	$V_{DS}=25\text{V}, V_{GS}=0\text{V}, f=1\text{MHz}$			50	pF
Output Capacitance *	$C_{oss}$				25	
Reverse Transfer Capacitance *	$C_{rss}$				5	

**SWITCHINGTIME**

Turn-on Time *	$t_{d(on)}$	$V_{DD}=25\text{ V}, R_L=50\Omega,$ $I_D=500\text{mA}, V_{GEN}=10\text{ V}$ $R_G=25\Omega$			20	ns
Turn-off Time*	$t_{d(off)}$				40	

\* These parameters have no way to verify.

## RATINGS AND CHARACTERISTIC CURVES

### Typical Characteristics

